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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,056	08/20/2001	Christophe Person	LXGN-00103	6732

7590 09/08/2003

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EXAMINER
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LY, CHEYNE D

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 09/08/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/933,056

**Applicant(s)**

PERSON, CHRISTOPHE

**Examiner**

Cheyne D Ly

**Art Unit**

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26-56 is/are pending in the application.
- 4a) Of the above claim(s) 31-41, 47-49, 52, 53, 55 and 56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26-30, 42-46, 50, 51 and 54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 26-56 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### **DETAILED ACTION**

1. Applicant's election of Group II, claims 26-56, species: Animal DNA/RNA; computer-readable encoding medium, GenBank public domain sequence database; BLAST; and PAM, in Paper No.11, filed July 22, 2003, is acknowledged.
2. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. The requirement is still deemed proper and is therefore made FINAL.
4. It is acknowledged claims 1-25 and 57-60 have been cancelled.
5. Claims 31-41, 47-49, 52, 53, 55 and 56 have been withdrawn due to being directed to subject matter other than the elected subject matter. It is noted that claim 55 comprises the limitation of the scoring matrix program, PAM. It is well known in the art that the scoring matrix program, PAM, is directed to amino acids (Altschul et al., page 404, column 1, lines 31-33), which is not of the elected subject matter.
6. Claims 26-30, 42-46, 50, 51, and 54, species: Animal DNA/RNA; computer-readable encoding medium, GenBank public domain sequence database; and BLAST, are examined on the merits.

### **CLAIM REJECTIONS - 35 USC § 101**

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 26-30, 42-46, 50, 51, and 54 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory algorithm type subject matter.

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9. It is acknowledged that the claim subject matter is a method for generating a database of sequences and product of said method.

10. Claims 26, 28-30, 42-46, 50, 51, and 54 are rejected due to the claimed subject matter being directed to a non-statutory subject matter due to lacking any physical steps such as displaying the stored in the database. Currently, the steps are merely algorithmic processes of manipulating data directed to sequences without providing a means of visualizing the results of the said processes; therefore, the claim subject matter lacks a real world value. The critical steps of displaying the sequences would cause the subject matter in its entirety to be a practical application.

11. Claim 27 is rejected because said claim is directed to a database comprising descriptive material considered to be either functional, a system and computer readable media; or non-functional, genetic data, which are regarded as non-statutory subject matter. The MPEP indicates that descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition (MPEP § 2106 (IV)(B)(b)). Specific to the instant case, database merely stores genetic data so as to be read without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer.

12. Further, it is acknowledged that the said database comprises a step for masking sequence data, however, the step of making merely changes the data format does not create any functional interrelationship, either as part of the stored data or as part of the computing processes performed

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by the computer, therefore, such descriptive material alone does not impart functionality either to the data as so structured, or to the computer.

### **CLAIM REJECTIONS - 35 USC § 102**

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 26-30, 42-46, 50, 51, and 54 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by NCBI News (1996).

3. NCBI News discloses a method of generating the UniGene database part of GenBank, which is a historical archive with a large degree of redundancy. A sequence (e.g. contiguous and noncontiguous genomic sequences, mRNA and EST sequences) maybe submitted by multiple labs. All ESTs are screened against existing functionally cloned GenBank entries to eliminate redundancies. New submissions that do not match any sequences in the UniGene set are considered new human genes and are organized into unique clusters of 1 EST (page 4, lines 13-30), as in instant claims 27-30.

4. The inclusion of UniGene Build Procedure (NCBI) is not used as prior art but only to expand on the UniGene screening procedure as discussed above. UniGene Build Procedure (NCBI) discloses ESTs are screened for contaminants, repeats, and low complexity sequence (masking) and the screened sequence must contain at least 100 informative base pairs to be a candidate for entry into the UniGene database (UniGene Build Procedure page 1, lines 10-15), as in instant claim 26.

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5. The inclusion of GenBank (Benson et al.) is not used as prior art but only to expand on the sequence database, GenBank, as discussed above. GenBank is a sequence database incorporates DNA sequences from all available public sources, which is accessible through the Internet (Abstract etc.) or CD-ROM (page 5, CD-ROM §), as in instant claims 42-46.
6. GenBank comprises BLAST family of programs (Abstract etc.), as in instant claims 50 and 51.
7. The inclusion of Basic Local Alignment Search Tool (Altschul et al.) is not used as prior art but only to expand on the BLAST program as discussed above. Altschul et al. discloses the use of a scoring matrix for the measuring of sequence similarities (page 404, column 1, lines 26-28), as in instant claim 54.

### **CONCLUSION**


8. NO CLAIM IS ALLOWED.
9. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

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11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.

12. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly  
9/2/03

  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER